Northwest Colorado Fire Program Area Fire Management Plan

2009

Prepared and		
Recommended By:	NW Colorado Fire Management Unit FMO	Date
Approved By:		
	Kremmling Field Office	Date
	Little Snake Field Office	Date
	White River Field Office	Date
	Browns Park National Wildlife Refuge	Date
	Arapaho National Wildlife Refuge	Date
	Dinosaur National Monument	Date

TABLE OF CONTENTS

I. INTRODUCTION	1
A. PURPOSE B. RELATIONSIP TO ENVIRONMENTAL COMPLIANCE C. COLLABORATIVE PROCESS D. AUTHORITIES CITATION E. OTHER REGULATORY GUIDELINES	1 1 2 3 4
II. RELATIONSHIP TO THE LAND MANAGEMENT PLANNING/FIRE POLICY	5
A. DOCUMENTS USED TO DEVELOP THIS PLAN	6
FIRE MANAGEMENT	10
III. SCOPE OF WILDLAND FIRE MANAGEMENT PROGRAM	12
A. GENERAL MANAGEMENT CONSIDERATIONS	. 13
MANAGEMENT UNIT	15
IV. FIRE MANAGEMENT COMPONENTS	38
A. WILDLAND FIRE SUPPRESSION B. WILDLAND FIRE USE C. PRESCRIBED FIRE D. NON-FIRE FUEL TREATMENTS E. EMERGENCY STABILIZATION AND REHABILITATION F. COMMUNITY PROTECTION/COMMUNITY ASSISTANCE	62 67 77 79
V. ORGANIZATION AND BUDGET	89
A. BUDGET AND ORGANIZATION	89
BUREAU OF LAND MANAGEMENT IMPLEMENTED FIRE RESOURCES	92
B. ASSISTANCE AGREEMENTS AND INTRA/INTERAGENCY AGREEMENTS	92
VI. MONITORING AND EVALUATION	93
A. COMPONENTS B. PROCEDURES C. TIME FRAMES D. RESPONSIBILITIES E. REPORTING REQUIREMENTS FOR MONITORING F. EVALUATING FMP IMPLEMENTATION AND ACHIEVEMENT OF FIRE RELATED GOALS AND OBJECTIVES	93 . 94 . 94 . 94
GLOSSARY OF TERMS	95
NWCG TERMS	95

APPENDICES			
APPENDIX A (MAPS) APPENDIX B (POLYGONS/ Management Objective Tables) APPENDIX C (SPECIES OF CONCERN) APPENDIX D (REFERENCES AND CITATIONS) APPENDIX E (NEPA – LITTLE SNAKE BLM AND BROWNS PARK FWS) APPENDIX F (NWCFMP OPERATIONAL PROCEDURES) F-1	A-1 B-1 C-1 D-1 E-1		
List of Figures:			
	0		
Figure 1: 10-Year Comprehensive Strategy	9		
Figure 2: Fire Occurrence – Routt National Forest 1994 – 2003	22		
Figure 3: Fire Occurrence – BLM 1994 – 2003	22		
Figure 4: Appropriate Management Response	66		
Figure 5: Community Assistance Planning Matrix	84 91		
Figure 6: NCFMP Organization Chart	91		
List of Tables:			
Table 1: Land Ownership – NCFMP	16		
Table 2: Fire Management Units – NCFMP	17		
Table 3: Fire Characteristics/Expected Fire Behavior	20		
Table 4: Fire Occurrence by FMU – BLM – 1993 – 2004	23		
Table 5: Fire Occurrence by FMU – RNF – 1993 – 2004	23		
Table 6: Fire Regimes	24		
Table 7: Condition Class Definitions	24		
Table 8: Condition Classes for BLM Lands	25		
Table 9: Values at Risk by Fire Management Unit	27		
Table 10: Fire Occurrence (Size and Acreage) – 1993 – 2004	39		
Table 11: Remote Weather Station Locations	48		
Table 12: Available Aviation Resources	53		
Table 13: Release Procedures	58		
Table 14: WFIP Implementation Stages	64		
Table 15: Fuel Management Projects – Prescribed Fire	70		
Table 16: Fuel Treatment Definitions	78		
Table 17: Fuel Management Projects – Mechanical Treatment	79		
Table 18: Organization and Equipment Requirements	89		
Table 19: NCFMP Implemented Year Fire Organization	90		
Table 20: IA and Support Equipment Needs	91		

I. INTRODUCTION

A. PURPOSE

The purpose of the Northwest Colorado Fire Management Program Fire Management Plan (FMP) is to identify and integrate all wildland fire management guidance, direction, and activities required to implement national fire policy and fire management direction from the following: Federal Wildland Fire Management Policy and Program Review-1995 and 2001; The Interagency Fire Management Plan Template; and <u>A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan.</u>

The Department of Interior (DOI) and USDA Forest Service (FS) policy requires that every area with burnable vegetation must have an approved fire management plan. Fire management plans are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plans. Fire management plans must provide for firefighter and public safety, include fire management strategies, tactics and alternatives; address values to be protected and public health issues; and be consistent with resource management objectives, activities of the area, and environmental laws and regulations (USDI/USDA FS 2001). This plan fulfills that requirement and provides the guidance necessary to manage wildland fire in a safe and cost effective manner to achieve the management objectives of Northwest Colorado Fire Management Program (NWCFMP) and other government agencies and partner entities it serves in accordance with applicable policies and regulations.

The Northwest Colorado Fire Management Plan (FMP) provides direction and guidance for the Bureau Of Land Management (BLM) units in Northwest Colorado, including the Little Snake Field Office, White River Field Office, and Kremmling Field Office. Although the National Park Service, specifically Dinosaur National Monument; and the U.S. Fish and Wildlife, including Browns Park and Arapahoe Fish and Wildlife Refuges have unit specific individual fire management plans, this plan will provide operational guidance for interagency actions and sets the stage for future integrated operations.

B. RELATIONSHIP TO ENVIRONMENTAL COMPLIANCE

All fire management objectives, constraints, and activities contained within this plan are consistent with the management directives found in the following planning documents:

White River Field Office Resource Management Plan and associated EIS (1996) and the White River Field Office Fire Management Plan and Environmental Analysis (1998)

<u>Little Snake Field Office Resource Management Plan and associated EIS</u> (1986) and the <u>Little Snake Field Office and Browns Park National Wildlife Refuge Fire Management Plan and Environmental Assessment</u> (2000)

1

Browns Park NWR Comprehensive Conservation Plan and Environmental Assessment (1999)

Arapaho NWR Comprehensive Conservation Plan and Environmental Assessment (2002)

<u>Kremmling Resource Area Resource Management Plan</u> and associated EIS (1983) and Kremmling Field Office Fire Management Plan (2001)

<u>Dinosaur National Monument Resource Management Plan</u> (1980) and <u>Dinosaur National</u> Monument Fire Management Plan and associate EA, revised 1998

C. COLLABORATIVE PROCESSES

The Routt National Forest and the Bureau of Land Management developed an integrated approach that emphasizes interagency cooperation and coordination in the development of a wildland fire management strategy to manage all wildland fires occurring on public lands under their collective jurisdiction. This concept was expanded to include Brown's Park National Wildlife Refuge. Public input was sought during the development of the Little Snake Field Office and Browns Park National Wildlife Refuge Fire Management Plan and Environmental Assessment in 2000, when the two agencies agreed to jointly manage wildland fires in the Brown's Park area of Northwest Colorado. Dinosaur National Monument has assumed an increased role by becoming more integrated in the Northwestern Colorado Fire Management Program and assuming suppression responsibility for BLM administered lands south of the monument.

Collaborative efforts are also underway to include State and local government into the planning process. Until recently, the Northwest Colorado Fire Management Program relates to its cooperators mainly through dispatching resources and providing reciprocating resources on wildland fire incidents locally and out of the local region. However, the National Fire Plan initiative of 2001 and the Federal Wildland Fire Policy and Review stress the need for all federal, state, and local agencies and entities to plan, coordinate, and implement all fire management activities in cooperation. With that background, the Northwest Colorado Fire Management Program has provided financial and technical assistance through the State Foresters to the local counties for fire planning and equipment. To better manage and coordinate fire management activities, the counties have begun to develop plans that complement the Federal planning activities in the area.

All counties with in the Fire Program Unit have completed individual Fire Management Plans with varying levels of complexity, detail and approach. Moffat County has developed the most extensive fire planning effort in the area to date. The fire management plan has been completed and covers the private, State lands with in the county. The Moffat County Plan integrates well with this Plan and provides for the full range of appropriate management response found in that plan. The Moffat County Plan also identifies areas in need of fuels treatment for protection of rural communities at risk to wildland fire. In their approach they have adopted the same

operational procedures and guides and polygon development found in Appendix B, p. B-1 through B-175, of this document. This planning effort and its implementation through their participation in the daily briefing during fire season and appropriate management response to wildland fire on private lands has provided an unprecedented collaborative relationship. This endeavor by Moffat County may provide for the most comprehensive fully integrated planning effort between private, state, and federal land boundaries, with respect to fire management issues, in the western United States.

Routt and Rio Blanco County has designed codes and fuels protection projects through their County planning department

Jackson County and Grand County plans emphasize fuel treatments to protect communities at risk to wildland fire.

The County Planning process is an evolving process supported by the Federal agencies Mitigation, Education and Prevention Programs that include grants, agreements, training and community based efforts such as Fire Wise.

The Northwest Colorado Fire Management Plan and related programs are based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management activities will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of future land management plans, future fire management plans, and implementation plans. As has been the case for many years, the fire management program will continue to provide opportunities for collaboration with other wildland fire management entities, research organizations, user groups and other interested parties.

It is the intent of all Federal agencies in the NWCFMP area to jointly develop a fire management plan within the next two years that is interagency in nature and will replace all existing plans. The new plan will comply with the National Environmental Policy Act.

D. AUTHORITIES CITATION

- Protection Act of September 20, 1922 (42 Stat. 857; U.S.C. 594)
- □ Economy Act of June 30, 1932 (47 Stat. 417; 31 U.S.C. 686)
- Taylor Grazing Act of June 28, 1934 (48 Stat. 1269; U.S.C. 315)
- Reciprocal Fire Protection Act of May 27, 1955(69 Stat. 66; 42 U.S.C. 1856, 1856a)
- Disaster Relief Act of May 22, 1974, Section 417 (Public Law 93-288)
- □ Federal Fire Prevention and Control Act of October 29, 1974, 88 Stat. 1535; 15 U.S.C. 2201
- The Federal Land Management and Policy Act of 1976 (FLPMA) (Public Law 94-579; 43 U.S.C. 1701)
- Federal Grants and Cooperative Act of 1977, Pub. L. 95-244, as amended by Pub. L. 97-258, September 13, 1982. 96 Stat. 1003 31 U.S.C. 6301-6308
- □ Supplemental Appropriation Act of September 10, 1982, 96 Stat.837

- Department of the Interior and Related Agencies Appropriation Act, (Public Law 103-32)
- □ Healthy Forests Initiative and Healthy Forests Restoration Act of 2003 (Public Law 108-148)
- □ United States Department of the Interior Manual (910 DM 1.3)
- Departmental Manual 620 Chapter 1, Wildland Fire Management General Policy and Procedures (April 10, 1998)
- □ Bureau of Land Management Manual 9200
- □ National Park Service Directors Order 18 (November 1998)
- □ National Park Service Reference Manual 18 (February 1999)
- □ National Wildlife Refuge System Administrative Act of 1966, as amended, 16 U.S.C. 668 dd-668 ee
- U.S. Fish and Wildlife Service Manual, 621 FW1-3 (February 7, 2000)
- U.S. Fish and Wildlife Service Fire Management Handbook (December 28, 2000)
- □ USDA Forest Service Manual 5100
- □ USDA Forest Service Handbook 5109

E. OTHER REGULATORY GUIDELINES

Wildland fire management activities within the NWCFP area will be implemented in accordance with the following regulations and directions:

- ☐ The Archaeological Resources Protection Act of 1979
- The Archaeological and Historical Preservation Act of 1974, as amended
- □ National Historic Preservation Act of 1966
- ☐ The Endangered Species Act of 1973, as amended
- The Provisions of the Clean Air Act, as amended 1990
- □ The Wilderness Act of 1964

II. RELATIONSHIP TO THE LAND MANAGEMENT PLANNING/FIRE POLICY

Federal land management agencies and local political authorities have planning levels that tier to the policies and laws, which they operate under. As these laws and policies develop over time various levels of management plans are written to help define sound implemental actions on the ground.

This fire management plan, using the federal fire policy as its guide, tiers to the land and resource management plans of each of the distinct administrative units. This provides clear direction for fire management activities. In instances where the land management plans had not addressed the fire management direction of the federal fire policy, environmental analysis of affects and resource management input were gathered and taken to the public for review and comment.

As cooperating agencies adopt portions or all of this planning effort to manage fire on private and state lands, within the guidelines of their laws and policies, they will become primary administrative stakeholders within the NWCFMP.

A. DOCUMENTS USED TO DEVELOP THIS PLAN

- □ Federal Wildland and Prescribed Fire Management Policy, Implementation Procedures and Reference Guide, August 1998
- Review and Update of the 1995 Federal Wildland Fire Management Policy, January 2001
- □ 1998 BLM Handbook 9214, "Prescribed Fire Management" describes authority and policy for prescribed fire use on public lands administered by the Bureau of Land Management
- □ Forest Service Manual (FSM) 5100
- □ Forest Service Manual (FSM) 2320
- □ Forest Service Handbook (FSH) 5109
- □ BLM Manual 9210
- ☐ Interagency Standards for Fire and Fire Aviation Operations
- September 2000, "Managing the Impacts of Wildfires on Communities and the Environment"
- October 2000, National Cohesive Strategy goal is to coordinate an aggressive, collaborative approach to reduce the threat of wildland fire to communities and to restore and maintain land health (http://www.fireplan.gov/) August 2001, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment -10 Year Comprehensive Strategy" provides a foundation for wildland agencies to work closely with all levels of government, tribes, conservation, and commodity groups and community-based restoration groups to reduce wildland fire risk to communities, increasing life safety, and increase and the environment
- □ May 2002, "Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment, 10 Year Comprehensive Strategy Implementation Plan"

- □ Healthy Forests Restoration Act of 2003 (HFRA) (P.L. 108-148), December 2003 1964 Wilderness Act
- Land and Resource Management Plan, 1997 Revision, Routt National Forest
- □ Final Environmental Impact Statement, 1997, Routt National Forest
- □ Kremmling Resource Area Resource Management Plan/Environmental Impact Statement, 1983
- □ Little Snake Resource Area Resource Management Plan/Environmental Impact Statement, 1986
- □ White River Resource Area Resource Management Plan/Environmental Impact Statement. 1996
- Comprehensive Conservation Plan, Arapahoe National Wildlife Refuge (2001), Brown's Park National Wildlife Refuge (1999)
- Dinosaur National Monument Fire Management Plan 1991; Revised 1998
- □ White River Field Office Fire Management Plan and Environmental Analysis, 1998
- □ Little Snake and Brown's Park Fire Management Plan and Environmental Analysis, 2000
- Medicine Bow and Routt National Forests / Thunder Basin National Grassland,
 NFMAS Analysis, June 1999
- □ Craig District BLM NFMAS Analysis, 1999

B. MANAGEMENT POLICIES CONCERNING FIRE

1. 2001 Federal Wildland Fire Management Policy: The 1995 Federal Wildland Fire Management Policy was the first comprehensive statement of wildland fire policy coordinated between the Departments of the Interior and Agriculture. The policy provided clear direction on important issues of safety, the role of fire in natural resource management, and the relative roles of federal and non-federal agencies in the wildland urban interface.

The 2001 Review and Update of the 1995 Federal Wildland Fire Management Policy consist of findings, guiding principles, policy statements, and implementation actions and resulted in the 2001 Federal Wildland Fire Management Policy. This replaces the 1995 Federal Wildland Fire Management Policy.

The 2001 Federal Wildland Fire Management Policy directs Federal agencies to achieve a balance between suppression to protect life, property, and resources, and fire use to regulate fuels and assure ecosystem sustainability. The policy provides guidance related to fire management and fire management planning:

- Safety Firefighter and public safety is the first priority. All fire management plans and activities must reflect this commitment.
- □ **Fire management and ecosystem sustainability** The full range of fire management activities will be used to help achieve ecosystem sustainability, including its interrelated ecological, economic, and social components.
- Response to wildland fire Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to wildland fire is based on ecological,

- social, and legal consequences of the fire. The circumstances under which a fire occurs; the likely consequences on firefighter and public safety; the welfare of natural and cultural resources; ecosystem sustainability, and the values to be protected dictate the appropriate management response to the wildland fire.
- Use of wildland fire Wildland fire will be used to: protect, maintain, and enhance resources and, as nearly as possible, be allowed to function in its natural ecological role. Use of fire will be based on approved FMPs and will follow specific prescriptions contained in operational plans.
- Rehabilitation and restoration Rehabilitation and restoration efforts will be undertaken to protect and sustain ecosystems, public health, and safety, and to help communities protect infrastructure.
- Protection priorities The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected.
- □ Wildland urban interface (WUI) The operational roles of federal agencies as partners in the WUI are: wildland firefighting, hazardous fuels reduction, cooperative prevention and education, and technical assistance. Structural fire suppression is the responsibility of tribal, State, or local governments. Federal agencies may assist with exterior structural protection activities under formal fire protection agreements that specify the mutual responsibilities of the partners, including funding. Some federal agencies have full structural protection authority for their facilities on lands they administer, and may also enter into formal agreements to assist State and local governments with full structural protection.
- Planning Every area with burnable vegetation must have an approved FMP. FMPs are strategic plans that define a program to manage wildland and prescribed fires based on the area's approved land management plan. Fire management plans must provide for firefighter and public safety; include fire management strategies, tactics, and alternatives; address values to be protected and public health issues; and be consistent with resource management objective, activities of the area, and environmental laws and regulations.
- Science Fire management plans and programs will be based on a foundation of sound science. Research will support ongoing efforts to increase our scientific knowledge of biological, physical, and sociological factors. Information needed to support fire management will be developed through an integrated interagency fire science program. Scientific results must be made available to managers in a timely manner and must be used in the development of land management plans, fire management plans, and implementation plans.
- □ **Preparedness** Agencies will ensure their capability to provide safe, costeffective fire management programs in support of land and resource management plans through appropriate planning, staffing, training, equipment, and management oversight.
- □ **Suppression** Fires are suppressed at minimum cost, considering firefighter and public safety, benefits, and values to be protected, consistent with resource objectives.

- Prevention Agencies will work together with local partners and other affected groups and individuals to prevent unauthorized ignition of wildland fires.
- □ Standardization Agencies will use compatible planning processes, funding mechanisms, training and qualification requirements, operational procedures, value-to-be-protected methodologies, and public education programs for all fire management activities.
- □ Interagency cooperation and coordination Fire management planning, preparedness, prevention, suppression, fire use, restoration and rehabilitation, monitoring, research, and education will be conducted on an interagency basis with the involvement of cooperators and partners.
- □ Communication and education Agencies will enhance knowledge and understanding of wildland fire management policies and practices through internal and external communication and education programs. These programs will be continuously improved through the timely and effective exchange of information among all affected agencies and organizations.
- Agency administrators and employee roles Agency administrators will ensure that their employees are trained, certified, and made available to participate in the wildland fire program locally, regionally, and nationally as the situation demands. Employees with operational, administrative, or other skills will support the wildland fire program as necessary. Agency administrators are responsible and will be held accountable for making employees available.
- Evaluation Agencies will develop and implement a systematic method of evaluation to determine effectiveness of projects through implementation of the 2001 Federal Fire Policy. The evaluation will assure accountability, facilitate resolution of areas of conflict, and identify resource shortages and agency priorities.
- **2.** The 10-Year Comprehensive Strategy: This 10-Year Comprehensive Strategy reflects the views of a broad cross-section of governmental and nongovernmental stakeholders. It outlines a comprehensive approach to the management of wildland fire, hazardous fuels, and ecosystem restoration and rehabilitation on Federal and adjacent State, tribal, and private forest and range lands in the United States. This strategy emphasizes measures to reduce the risk to communities and the environment and provides an effective framework for collaboration to accomplish this.

A set of core principles was developed to guide the identification of goals for this strategy. These principles include such concepts as collaboration, priority setting, and accountability.

An open, collaborative process among multiple levels of government and a range of interests will characterize the fulfillment of this strategy. The end results sought by all stakeholders are healthier watersheds, enhanced community protection, and diminished risk and consequences of severe wildland fires. The primary goals of the 10-Year Comprehensive Strategy are:

- ☐ Improve prevention and suppression
- □ Reduce Hazardous Fuels
- □ Restore Fire Adapted Ecosystems
- □ Promote Community Assistance

Successful implementation of the Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - 10-Year Comprehensive Strategy (http://www.fireplan.gov/reports/7-19-en.pdf) requires a collaborative process among multiple levels of government and a range of interests resulting in healthier watersheds, enhanced community protection, and diminished risk and consequences of severe wildland fires.

The following core principles are overarching for all fire planning area goals:

- □ **Collaboration** Facilitate a collaborative approach at the local, regional, and national levels.
- □ **Priority Setting** Emphasize the protection of communities, municipal, and other high-priority watersheds at risk. Long-term emphasis is to maintain and restore fire prone ecosystems at a landscape scale.
- □ Accountability Establish uniform and cost-effective measures, standards, reporting processes, and budget information in implementation plans that will fold into the Government Performance and Results Act process.

Figure -1 Description of the 10-Year Comprehensive Strategy and Implementation Plan and Their Relationship to Other **Directives and Programs** State Resources A Collaborative Approach for Reducing **Local Resources** Wildland Fire Risks to **Tribal Resources** Communities and the Environment: Volunteer Resources 10 Year Comprehensive Strategy **Private** and Implementation Plan Investment Federal Fire Policy Implementation The National Fire Plan Cohesive USDA/DOI States Tribes Stakeholders Public Strategy Congressional Preparedness **Appropriations** Hazardous Fuels Restoration/Rehabilitation ncy Strategi Community Assistance Plans Accountability ate/Tribal/Loca

3. The Wilderness Act of 1964: The Wilderness Act provisions apply to all fire management activities undertaken on wilderness lands. The Wilderness Act states that "... measures may be taken as may be necessary in the control of fire...". The act also generally prohibits motorized equipment or mechanized transport in designated wilderness areas; however it allows them "as necessary to meet minimum requirements for the administration for the area for the purposes of this act."

Fire and fuels management actions will meet the wilderness non-impairment mandate for Wilderness Areas. In wilderness study areas fire and fuels management will strive to avoid unnecessary impairment that would affect the suitability toward wilderness designation of these areas. The ultimate goal would be to return fire to its natural role in these ecosystems.

C. RESOURCE MANAGEMENT STANDARDS AND GUIDELINES RELATED TO FIRE MANAGEMENT

The FMP helps meet the general resource management direction and sustains the productivity of biological systems identified in the following documents:

- □ White River Field Office Fire Management Plan and Environmental Analysis (EA)—1998
- □ White River Field Office Resource Management Plan (EIS) -1996
- □ Little Snake Field Office and Browns Park National Wildlife Refuge Fire Management Plan 2000
- □ Little Snake Field Office and Browns Park NWR FMP Environmental Assessment (EA) 2000
- □ Little Snake Field Office Resource Management Plan (EIS) –1986
- □ Browns Park NWR Comprehensive Conservation Plan and Environmental Assessment –1999
- □ Arapaho NWR Comprehensive Conservation Plan and Environmental Assessment 2002
- □ Kremmling Field Office Fire Management Plan 2001
- □ Kremmling Resource Area Resource Management Plan (EIS) -1983
- Dinosaur National Monument Fire Management Plan revised 1998
- □ National Environmental Policy Act requirements fulfilled with FMP and EA 1991

These land and resource management plans are the landscape level decision documents. The fire management plan follows the goals and objectives identified in these plans. Key landscape goals and objectives, relating to fire management found in these interagency plans are as follows:

- Allow natural succession to proceed without human intervention in all designated wilderness and wilderness study areas.
- ☐ Manage vegetation types outside of wilderness to provide multiple use benefits commensurate with land capability and resource demand.
- ☐ Improve the health and vigor of all vegetation types.
- ☐ Integrate vegetation management with resource management in all functional areas.
- Provide air and water quality compatible with Federal and state laws.
- Provide cost effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life.
- Protect and manage important cultural resource properties.

Additionally, in January 1997 the Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health (http://www.co.blm.gov/standguide.htm) and amended all

RMPs in the State. Standards describe the desired future conditions needed to sustain public land health and apply to all uses of public lands. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. The five standards are as follows:

- □ Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, landform, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.
- Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.
- Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.
- Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.
- □ Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the water quality standards established by the State of Colorado. Water quality standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.